

Dr. Jekyll and Mrs. Hyde: Life of the tarantula wasp

Fall is an excellent time to catch a glimpse of the hairy beasts of the spider world at Site 300 and in grasslands around the Livermore area.

The tarantula is the largest of the spiders found in the region, with a body up to two inches in length and legs three to four inches long. The mating season for the tarantula begins in October and continues until mid-November. During this time, mature males can be seen roaming across the roads and grasslands at Site 300 searching for a mate. The female tarantulas do not roam and will often occupy the same hole or rock for many months or even years at a time.

Unlike most spiders, tarantulas do not spin webs to catch their prey, which consists of small insects and sometimes lizards. Instead, tarantulas chase their prey on the ground and live underground in burrows. Normally, females can live up to 25 years or more, while the males are not quite so lucky, often being eaten by the females after mating. Some tarantulas, however, meet a far more gruesome death than cannibalism. Much like the plot of a bad horror movie, some unlucky tarantulas become a victim of the “body snatchers” of the insect world – the parasitic tarantula wasp.

Tarantula wasps (*Pepsis spp.*) are parasitic insects that use tarantulas as live hosts, or food for their developing larvae. The brightness of the orange-red colored wings of this two-inch-long, black wasp is a warning to other creatures, including humans, that it is dangerous and should be avoided. Its sting is the most painful of any North American insect (although it is less poisonous to humans than a honeybee). Only the female tarantula



By Megan Cook

quite harmless to people and will rarely bite unless handled roughly.

When a female tarantula wasp is ready to lay her eggs, she uses her sense of smell to find a tarantula. She then stings the tarantula, which permanently paralyzes it. The wasp, despite being half its size, drags the tarantula into a burrow, lays a single egg on its abdomen and then seals the burrow. Once the wasp larva hatches, it feeds on the juices of the still-living but paralyzed tarantula until the larva reaches its last molt stage. Then the new adult wasp tears open the tarantula and feasts on the organs of the tarantula. This last act spells the end for the tarantula. After this gruesome beginning to life, the tarantula wasp lives the rest of its life as a peaceful nectar eater...until it is once again time to reproduce. This is when the female tarantula wasp makes its transition from Dr. Jekyll to Mrs. Hyde, searching the grasslands for its next victim.



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Tarantula wasp (right) and its innocent victim, the tarantula (above). The bright coloration of this wasp gives warning that it may be wise to steer clear of it. The tarantula wasp can deliver the most painful sting of any North American insect and its young eat tarantulas alive.

wasps can sting but its use of that sting has made the tarantula wasp the tarantula's fiercest and most dreaded enemy. Ironically, even though they look more frightening than the attractive tarantula wasp, tarantulas are

